

User Manual

CT-HDVD-4X14K-SW

4 x 1 HDMI Switcher



Version: V1.0.0



Important Safety Instructions

Warning:

To reduce the risk of fire, electric shock or product damage:



1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.



6. Clean this apparatus only with a dry cloth.



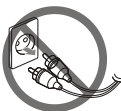
2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.



7. Unplug this apparatus during lightning storms or when unused for long periods of time.



3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.



8. Protect the power cord from being walked on or pinched particularly at plugs.



4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



9. Only use attachments / accessories specified by the manufacturer.



5. Do not place open flames, such as lighted candles, on the unit.



10. Refer all servicing to qualified service personnel.



Table of Contents

Introduction..... 2

 Overview..... 2

 Features 3

 Package Contents 3

 Specifications..... 4

 Panel 6

Hardware Installation..... 8

Operation..... 10

 Front Panel 10

 Remote Control 10

EDID Management 13

Firmware Upgrade 14

Product Service 17

 Maintenance 17

 Provided Service 17

 Warranty 18

Glossary 21

Introduction

Overview

The CT-HDVD-4X14K-SW is the perfect solution for managing multiple sources of audio and video. It provides three inputs for direct connection of HDMI devices. This switch has an additional VGA + Audio input also. Analog Audio inputs can be embedded in HDMI signal, and a pair of RCA outputs make the extraction of audio for direct connection to amplifiers. Simply press one button to select your desired HDMI source for display on the HDTV.

It can be widely used in digital entertainment centers, control centers, conference rooms, schools and corporate training environments.





- Supports 1 input (VGA + Audio) and 3 HDMI inputs
- Audio extraction
- Supports 4K x 2K
- Input ports priority: VGA > HDMI1 > HDMI 2> HDMI3.
- Supports HDMI and VGA inputs
- HDMI 1.4 with 3D
- HDCP compliant
- EDID management
- Firmware updates via Mini-B USB

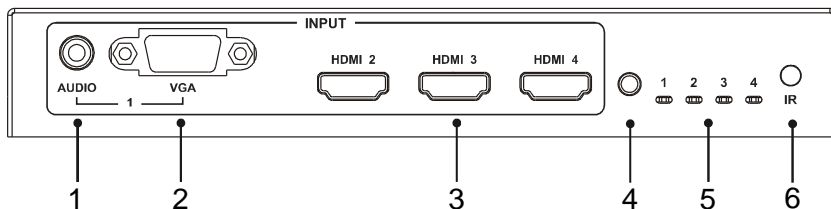
- 1 x HDMI Switcher CT-HDVD-4X14K-SW
- 1 x Remote
- 1 x 5V 2A DC Power Supply
- 2 x Mounting Ear

Specifications

Video	
Input	3 x HDMI, 1 x VGA
Output	1 x HDMI
Input Signal Type	HDMI: HDMI 1.4 with HDCP VGA: RGBHV
Output Signal Type	HDMI: HDMI 1.4 with HDCP
Input/output Resolution Support	HDMI: 480i,576i,480p,576p,720p@50, 720p@60,1080p@24,1080i@25, 1080i@30,1080p@30,1080p@50, 1080p@60, 4K x 2K@30 VGA: 640 x 480, 800 x 600, 1024 x 768, 1280 x 720, 1280 x 1024, 1920 x 1080, 1920 x 1200
Maximum Pixel Clock	297 MHz
Input Video Signal	0.5~1.5 volts p-p
Video Impedance	100 ohms
Audio	
Input	1 x TRS 3.5mm Jack
Output	2 x RCA
Input Signal Type	Stereo
Output Signal Type	Stereo
Input Impedance	>10K ohms

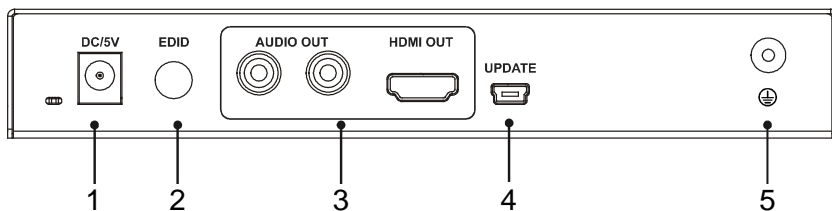
Output Impedance	75 ohms
General	
Power Supply	5V 2A DC
Power Consumption	6 Watts Max
Control Method	Button, Remote
System Requirements	<ul style="list-style-type: none"> • HDMI/DVI source devices, connect with HDMI cables • VGA source devices, connect with VGA cables • HDMI displays (TVs or monitors) or HDMI equipped AV receivers, connect with HDMI cables • Industry standard HDMI, VGA and analog audio cables
Operating Temperature	32°F to 95°F (0°C to 35°C) 10% to 90%, non-condensing
Storage Temperature	-4°F to 140°F (-20°C to 70°C) 10% to 90%, non-condensing
ESD Protection	± 8kV(Air-gap discharge)/ ± 4kV(Contact discharge)
Dimensions (W x H x D)	Device: 180mm x 28mm x 90mm 7.09" x 1.10" x 3.54" Gift Box: 210mm x 85mm x 185mm 8.27" x 3.35" x 7.28"
Mass (Main unit)	0.48kg
Certification	CE, FCC, RoHS

Front Panel



ID	Name	Description
1	Audio Input	Binding VGA channel, embedded in HDMI signal output
2	VGA Input	Connect to VGA source
3	HDMI 2~4	Connect to HDMI source
4	Select button	Press to scroll between connected sources
5	Indicators	Lit when source selected
6	IR Receiver Sensor	Accept IR signal

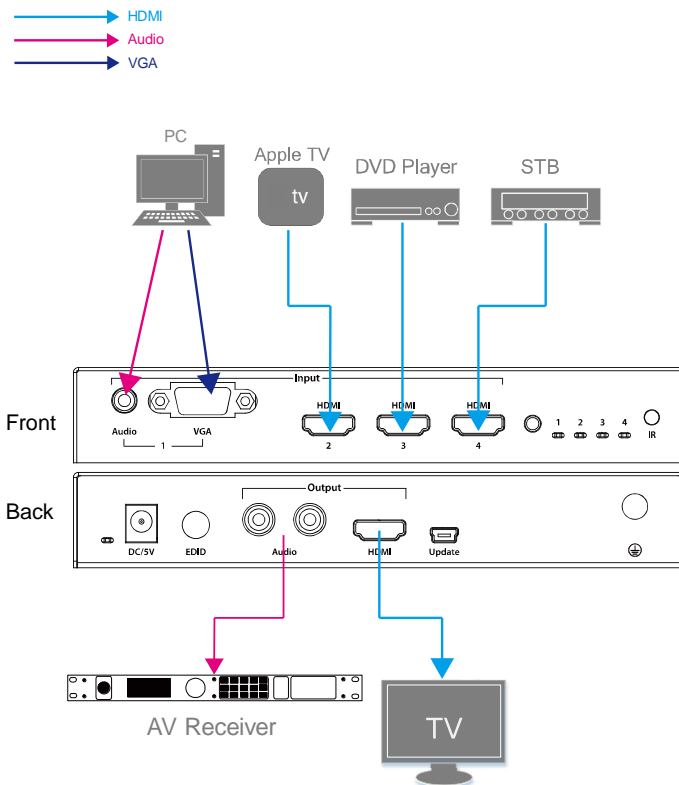
Rear Panel



ID	Name	Description
1	Power	5V 2A DC power input
2	EDID DIP Switch	For adjustment of EDID settings
3	Audio and HDMI outputs	Connect to audio system and HDMI sink
4	Mini USB	Update the firmware
5	GND	Grounding

Hardware Installation

1. Connect the HDMI or VGA input source (such as DVD Player, Apple TV, and STB) to CT-HDVD-4X14K-SW.
2. Connect the HDMI source (such as HD-LCD) to HDMI and Audio output of CT-HDVD-4X14K-SW.
3. Connect the A/V Receiver to CT-HDVD-4X14K-SW.
4. Power on all the devices.
5. Control CT-HDVD-4X14K-SW by pressing front panel buttons or the provided remote.



Operation

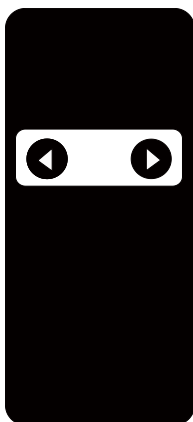
The CT-HDVD-4X14K-SW can be controlled through the front panel button or remotely using the remote provided.

Front Panel

Select the source by pressing the **Select** button, indicators will indicate the selection.

Remote Control

There are two buttons on the remote to select the HDMI input source.



Note:

Input ports priority: VGA > HDMI1 > HDMI 2> HDMI3.

The following table shows the IR code information:

Button	IR Code
Right	0000 006D 0022 0002 0155 00AA 0015 0015 0015 0040 0015
	0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015
	0015 0040 0015 0015 0015 0040 0015 0040 0015 0040 0015

11

EDID Management

The HDMI Switcher features an EDID copy mode that can be used when the EDID's do not meet the installation requirements.

Note:

The change doesn't take effect until you restart the HDMI Switcher.



Position	Functions
0	Automatically copy HDMI Sink's EDID to all HDMI Inputs, if failed, the EDID of all HDMI inputs won't change.
1	After press and hold the select button for about 3 seconds, if the four indicators flash for one time, that means EDID copy is succeed, flash three times means it failed to copy the EDID.
2	1080P 2 channel audio (default value)
3	1080P 5.1 channel audio
4	1080P 7.1 channel audio
5	1080P 3D 2 channel audio
6	4K x 2K 2 channel audio
7	Reserved

Firmware Upgrade

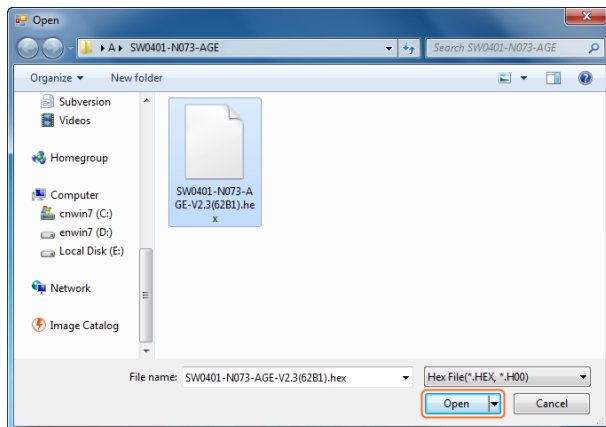
Warning:

Do not turn power off during upgrade processing, otherwise it may cause damage to the device.

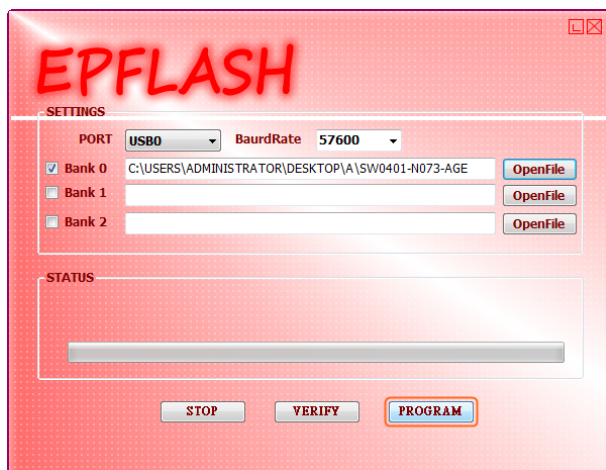
Step 1. Double click **EPFlash.exe** on your computer.



Step 2. Click **OpenFile** button, browse for the **.hex** file, and click **Open**.



Step 3. Click **PROGRAM**.



Step 4. The firmware upgrade is completed.

EPFLASH

SETTINGS

PORT

USB0

BaudRate

57600

Bank 0

☒

C:\USERS\ADMINISTRATOR\DESKTOP\A\SW0401-N073-AGE

OpenFile

Bank 1

☐

OpenFile

Bank 2

☐

OpenFile

STATUS

Program BANK0 OK!

STOP

VERIFY

PROGRAM

UF1.0

Product Service

Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

Provided Service

- 1. Damage Requiring service:** The unit should be serviced by qualified service personnel if:
 - The DC power supply cord or AC adapter has been damaged;
 - Objects or liquids have gotten into the unit;
 - The unit has been exposed to rain;
 - The unit does not operate normally or exhibits a marked change in performance;
 - The unit has been dropped or the cabinet damaged.
- 2. Servicing Personnel:** Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
- 3. Replacement parts:** When parts need replacing ensure the service uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
- 4. Safety check:** After repairs or service, ask the service to perform safety checks to confirm that the unit is in proper working condition.



CABLETRONIX 1-Year Limited Warranty

CABLETRONIX. (the "Company") warrants to the Original Purchaser that the item purchased is free from defects in workmanship or material under normal use. This warranty starts on the date of shipment of the hardware to the Original Purchaser.

During the warranty period, the Company agrees to repair or replace, at its sole option, without charge to Original Purchaser, any defective component. To obtain service, the Original Purchaser must return the item to the Company properly packaged for shipping. All defective products must be returned to the Company within thirty (30) days of failure. Products must be returned with a description of the failure and Return Merchandise Authorization (RMA) number supplied by the Company. To receive a RMA number and a return shipping address on where to deliver the hardware, call 610-429-1821. The shipping, and insurance charges incurred in shipping to the Company will be paid by Original Purchaser, and all risk for the hardware shall remain with the Original Purchaser until such time as Company takes receipt of the hardware. Upon receipt, the Company will promptly repair or replace the defective unit, and then return said unit to Original Purchaser, shipping prepaid. The Company may use reconditioned or like-new parts or units, at its sole option, when repairing any hardware. Repaired products shall carry the same amount of outstanding warranty as from original purchase. Any claim under the warranty must include dated proof of purchase or invoice. In any event, the Company's liability for defective hardware is limited to repairing or replacing the hardware.

This warranty is contingent upon proper use of the hardware by Original



Purchaser and does not cover: if damage is due to Acts of God (including fire, flood, earthquake, storm, hurricane or other natural disaster), accident, unusual physical, electrical, or electromechanical stress, modifications, neglect, misuse, operation with media not approved by the Company, tampering with or altering of the hardware, riot, war, invasion, act of foreign enemies, hostilities (regardless of whether war is declared), civil war, rebellion, revolution, insurrection, military or usurped power or confiscation, terrorist activities, nationalization, government sanction, blockage, embargo, labor dispute, strike, lockout or interruption or failure of electricity, air conditioning, or humidity control, internet, network, or telephone service

The warranties given herein, together with any implied warranties covering the hardware, including any warranties of merchantability or fitness for a particular purpose, are limited in duration to one year from the date of shipment to the Original Purchaser. Jurisdictions vary with regard to the enforceability of warranty limitations, and you should check the laws of your local jurisdiction to find out whether the above limitation applies to you.

The Company shall not be liable to your for loss of data, loss of profits, lost savings, special, incidental, consequential, indirect, or other similar damages arising from breach of warranty, breach of contract, negligence, or other legal action even if the Company or its agent has been advised of the possibility of such damages, or for any claim brought against your by another party. Jurisdictions vary with regard to the enforceability of provisions excluding or limiting liability for incidental or consequential damages. You should check the laws of your local jurisdiction to find out whether the above exclusion applies to you.

This warranty allocates risks of product failure between Original Purchaser



and the Company. The Company's hardware pricing reflects this allocation of risk and the limitations of liability contained in this warranty. The warranty set forth above is in lieu of all other express warranties, whether oral or written. The agents, employees, distributors, and dealers of the Company are not authorized to make modification to this warranty, or additional warranties binding on the Company. Accordingly, additional statements such as dealer advertising or presentations, whether oral or written, do not constitute warranties by the Company and should not be relied upon.

This warranty gives you specific legal rights. You may also have other rights which vary from one jurisdiction to another.



Glossary

Acronym	Complete Term
EDID	Extended Display Identification Data
HD	High Definition
HDCP	High-bandwidth Digital Content Protection
HDMI	High Definition Multimedia Interface
HDTV	High Definition Television
IR	Infrared
RCA	Radio Corporation of American
TRS	Tip Ring Sleeve
VGA	Video Graphics Array



1085 Andrew Drive Suite A
West Chester, PA 19380

Tel: 1.800.688.9282
Fax: 1.800.230.1793

www.cabletronix.com
www.nacebrands.com